

### IN THE CLAIMS

1. (currently amended) A video processing apparatus comprising:

input means for inputting video data of a macroblock unit, in which one macroblock of video data includes a Y macroblock, a Cb macroblock, and a Cr macroblock;

storage means, having two or more storage banks, for allocating addresses to said video data inputted by said input means in an ascending order such that each said Y macroblock is allocated a first number of ascending order addresses and each said Cb macroblock and Cr macroblock is allocated a second number of ascending order addresses in which the second number is different than the first number, for switching from one of said banks to another of said banks every horizontal line or width of a video display screen, and for storing said video data therein; and

reading means for reading out said video data stored in said storage means in the ascending order of the addresses,

wherein the first number of ascending order addresses of a respective Y macroblock are arranged in a line or row and the second number of ascending order addresses of each of a respective Cb macroblock and Cr macroblock are arranged in a line or a row such that when one macroblock of video data is read out from said storage means by the reading means a switch between lines or rows does not occur for both (i) the respective Y macroblock and (ii) the respective Cb and Cr macroblocks.

2. (original) A video processing apparatus according to claim 1, further comprising:

conversion storage means for converting said video data read out by said reading means into the data of an address arrangement similar to that of a video image which is

displayed on the basis of said video data and storing said video data.

3. (canceled)

4. (currently amended) A video processing method comprising:

an inputting step of inputting video data of a macroblock unit, in which one macroblock of video data includes a Y macroblock, a Cb macroblock, and a Cr macroblock;

a storing step of allocating addresses to said video data inputted by said inputting step in an ascending order such that each said Y macroblock is allocated a first number of ascending order addresses and each said Cb macroblock and Cr macroblock is allocated a second number of ascending order addresses in which the second number is different than the first number, of switching from one storage bank to another storage bank every horizontal line or width of a video display screen, and of storing said video data therein; and

a reading step of reading out said video data stored in said storing step in an ascending order of the addresses,

wherein the first number of ascending order addresses of a respective Y macroblock are arranged in a line or row and the second number of ascending order addresses of each of a respective Cb macroblock and Cr macroblock are arranged in a line or a row such that when one macroblock of video data is read out during the reading step a switch between lines or rows does not occur for both (i) the respective Y macroblock and (ii) the respective Cb and Cr macroblocks.

5. (currently amended) A medium for allowing a computer to execute a program, wherein said program comprises:

an inputting step of inputting video data of a macroblock unit, in which one macroblock of video data includes a Y macroblock, a Cb macroblock, and a Cr macroblock;

a storing step of allocating addresses to said video data inputted by said inputting step in an ascending order such that each said Y macroblock is allocated a first number of ascending order addresses and each said Cb macroblock and Cr macroblock is allocated a second number of ascending order addresses in which the second number is different than the first number, of switching from one storage bank to another storage bank every horizontal line or width of a video display screen, and of storing the video data therein; and

a reading step of reading out said video data stored by said storing step in the ascending order of the addresses,

wherein the first number of ascending order addresses of a respective Y macroblock are arranged in a line or row and the second number of ascending order addresses of each of a respective Cb macroblock and Cr macroblock are arranged in a line or a row such that when one macroblock of video data is read out during the reading step a switch between lines or rows does not occur for both (i) the respective Y macroblock and (ii) the respective Cb and Cr macroblocks.

6. (withdrawn) A video processing apparatus for decoding a video stream having a layer structure constructed by a sequence layer, a GOP layer, a picture layer, a slice layer, a macroblock layer, and a block layer, comprising:

Sequence\_Header information predicting means for predicting Sequence\_Header information on the basis of information which certainly appears in a picture; and

decoding means for decoding video data by using the information predicted by said Header information predicting means when said Sequence\_Header is not detected.

7. (withdrawn) A video processing apparatus according to claim 6, wherein said Sequence\_Header information predicting means includes vertical pixel number predicting means for predicting the number of pixels in the vertical direction of a picture plane from information in a slice.

8. (withdrawn) A video processing apparatus according to claim 6, wherein said Sequence\_Header information predicting means includes horizontal pixel number predicting means for predicting the number of pixels in the horizontal direction of a picture plane from information in a macroblock.

9. (withdrawn) A video processing apparatus according to claim 6, wherein said Sequence\_Header information predicting means includes aspect ratio predicting means for predicting the number of pixels in the vertical direction of a picture plane from information in a slice, predicting the number of pixels in the horizontal direction of the picture plane from information in a macroblock, and predicting an aspect ratio of the picture plane from said predicted number of pixels in the vertical direction and said predicted number of pixels in the horizontal direction.

10. (withdrawn) A video processing method of decoding a video stream having a layer structure constructed by a sequence layer, a GOP layer, a picture layer, a slice layer, a macroblock layer, and a block layer, comprising the steps of:

predicting Sequence Header information on the basis of information which certainly appears in a picture; and

decoding video data by using said predicted information when said Sequence\_Header is not detected.

11. (withdrawn) A video processing method according to claim 10, wherein when said Sequence\_Header information is predicted, the number of pixels in the vertical direction of a picture plane is predicted from information in a slice.

12. (withdrawn) A video processing method according to claim 10, wherein when said Sequence\_Header information is predicted, the number of pixels in the horizontal direction of a picture plane is predicted from information in a macroblock.

13. (withdrawn) A video processing apparatus according to claim 10, wherein when said Sequence\_Header information is predicted, the number of pixels in the vertical direction of a picture plane is predicted from information in a slice, the number of pixels in the horizontal direction of the picture plane is predicted from said number of pixels in the vertical direction and said number of pixels in the horizontal direction and an aspect ratio of the picture plane is predicted.